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EXAMINER	
LEROUX, ETIENNE PIERRE	
ART UNIT	**PAPER NUMBER**
2171	7

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/819,701	FUJISAKI, NAOYA	
	Examiner	Art Unit	
	Etienne P LeRoux	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 September 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim1-9, 11 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat No 4,945,475 issued to Bruffey et al (hereafter Bruffey '475).

Regarding claims 1, 2, 15 and 16, Bruffey '475 discloses:

a setting unit setting policy attribute data [Fig 2] indicating a policy on which file management is based, in correspondence with path information [Fig 2] of a directory [Fig 2, 91], and a file managing unit managing a file [Fig 6, 95] based on policy data composed of the path information [Fig 2] of the directory [Fig 6, 91] and the policy attribute data [Fig 6, volume 2].

Regarding claims 2 and 17, Bruffey '475 discloses assigning attribute data to a subdirectory [Fig 2, 18, 19 and 20].

Regarding claim 3, Bruffey '475 discloses whether or not to require a path search is registered with the policy attribute data [col 3, lines 15-25]

Regarding claim 4, Bruffey '475 discloses a control table [Figs 4 and 6-8], pointer information [Fig 3].

Regarding claim 5, Bruffey '475 discloses check point information indicating path information of a directory yet to be generated to said control table for the directory [each directory is a branching node, col 3, lines 16-24].

Regarding claim 6, Bruffey '475 discloses checkpoint information registered to said control table is searched, and a directory for which the checkpoint information is set is searched [col 3, lines 30-48].

Regarding claim 7, Bruffey '475 discloses when a name of a directory is changed, policy attribute data of a parent is inherited to a subdirectory if policy attribute data is not specified for the subdirectory, and specified policy attribute data is assigned to a subdirectory if the policy attribute data is specified for the subdirectory [col 4, line 54 through col 5, line 38]

Regarding claim 8, Bruffey '475 discloses inherited data [col 4, line 54 through col 5, line 38] and assigned data [col 5, lines 60 through col 6, line 12]

Regarding claim 9, Bruffey '475 discloses a policy registering unit if a file operation violates the policy [Fig 8, 140 and col 9, lines 42 through col 10, line 5]

Regarding claim 11, Bruffey '475 discloses total size of files [col 8, lines 36-39]

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruffey '475 as applied to claim 1 above, and further in view of US Pat No 5,564,119 issued to Krawchuk et al (hereafter Krawchuk '119).

Regarding claim 10, Bruffey '475 discloses the essential elements of the claimed invention per supra paragraph except for causing a file or directory which violated the policy to comply with the policy. Krawchuk '119 discloses causing a file or directory which violated the policy to comply with the policy [Fig 6]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bruffey '475 to include causing a file or directory which violated the policy to comply with the policy as taught by Krawchuk '119 for the purpose of controlling cost, increased effort and complexity [col 10, line 19].

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruffey '475 as applied to claim 1 above, and further in view of US Pat No 5,764,972 issued to Crouse et al (hereafter Crouse '972).

Regarding claim 12, Bruffey '475 discloses the essential elements of the claimed invention per supra paragraph but does not disclose path information of an archived file. Crouse '972 discloses path information of an archived file [col 4, lines 42-67]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bruffey '475 to include path information of an archived file as taught by Crouse '972 for the purpose of providing a logical means for storing and accessing data stored in remote files [col 4, lines 42-47].

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bruffey '475 and Crouse '972 as applied to claim 12 above, and further in view of US Pat No 5,778,389 issued to Pruett et al (hereafter Pruett 389).

Regarding claim 13, the combination of Bruffey '475 and Crouse '972 disclose the essential elements of the claimed invention per supra paragraph except for a hidden file. Pruett '389 discloses a hidden file [col 8, lines 29-40]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Bruffey '475 and Crouse '972 to include a hidden file as taught by Pruett '389 for the purpose of preventing the synchronization of certain files [col 8, lines 29-32].

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bruffey '475 and Crouse '972 and Pruett '389 as applied to claim13 above, and further in view of US Pat No 6,018,744 issued to Mamiya et al (hereafter Mamiya '744).

Regarding claim 14, the combination of Bruffey '475 and Crouse '972 and Pruett '389 discloses the essential elements of the claimed invention per supra paragraph but does not disclose path information of an archived file matches the path information of the policy directory. Mamiya '744 discloses an archived file matches the path information of the policy directory [col 2, lines 46-52]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify he combination of Bruffey '475 and Crouse '972 and Pruett '389 to include an archived file matches the path information of the policy directory as taught by Mamiya '744 for the purpose of managing the database and various files in a unified manner [col 2, lines 36-41].

Response to Arguments

8. Applicant's arguments filed September 12, 2003, have been fully considered but they are not persuasive. Applicant states on page 7, "In item 2 on pages 2-3 of the Office Action, claims 1-9, 11 and 15-17 were rejected under 35 U.S.C. § 102(b) as anticipated by Bruffey et al. As described above, the data structure taught by Bruffey et al contains only directory identifiers and names. Nothing was cited or has been found suggesting storage of 'attribute data indicating a policy on which file management is based' (e.g., claim 1, lines 3-4) corresponding to 'path information of a directory' (e.g., claim 1, line 4). The only thing identified in the Office Action corresponding to 'policy attribute data' was 'volume 2' office Action, page 2, line 10) in Fig 7. The only volume Fig 6 that has a '2' associated with it is the root directory 91. Nothing in Fig 6 or the description thereof at column 6, line 15 to column 8, line 39 suggests the storage of any data as part of the root directory name and key or anywhere else that indicates a policy on which file management is based." Examiner is not persuaded.

9. Bruffey et al discloses in column 6, lines 15-42 the following:

Referring to FIG. 6, a hypothetical catalog 90 is used to illustrate the implementation of cataloging of the preferred embodiment. The structure 90 has a root directory 91 named "Volume". Each directory of the preferred embodiment is assigned a unique numerical identifier known as the directory identifier (DirID). The root directory of catalog 90 has DirID value of 2. Root directory 91 has three branches comprised of directory 92 and files 93 and 94. Directory 92 has a name of "Folder" and a DirID value of 29. In turn, directory 92 has two branches comprised of files 95 and 96. Files 93-96 are named "A", "B", "C" and "D", respectively in this example. The architecture of the directories and files follows the HFS structure as previously explained in FIG. 2. The complete cataloging structure 90 is stored as data records in various leaf nodes of the B-Tree of FIGS. 3 and 4 known as the catalog B-Tree. It is appreciated that the cataloging structure 90, although a tree, is in itself not a B-Tree. The form of structure 90 is actually stored in the various leaf nodes of a B-Tree. It is to be appreciated that the cataloging structure 90 not be confused with the previous description of the B-Tree. Catalog 90 and the B-Tree structure are two separate and distinct structures. The hierarchical structure of the catalog 90 is implemented as a B-Tree structure and stored as data records in leaf nodes of a B-Tree similar to that of FIGS. 3 and 4.

Furthermore, Bruffey et al discloses in column 3, lines 10-55 the following:

FIG. 2 illustrates the architecture of the Hierarchical Filing System (HFS) of the present invention. This particular HFS 16 includes a root directory 17 and files 21-24. The HFS 16 also includes directories 18-20. Each directory is capable of containing files, as well as other directories such as directory 18 containing directory 20. Each directory is a branching node, allowing for none or a plurality of sub-branching nodes. Each directory contains information which permits the branching to occur. The actual data is stored in the files 21-24. Because each file is a termination node, it does not need to maintain further branching information. Instead, each file stores the actual data. Therefore, the directories 17-20 maintain branching information, while files 21-24 contain the stored data. HFS 16 accesses files 21-24 in a hierarchical fashion so that serial search for the files is not necessary. Assume in the example of FIG. 2 that access to data stored in file 23 is desired. A search of directory 17 reveals that two possible paths exist in seeking the address of file 23. One path from directory 17 leads to directory 18 and the other path leads to directory 19. The desirable path is to directory 18, at which point there are again two paths. The desirable path from directory 18 leads directly to file 23. Although this example is simplistic because of the miniscule number of files shown, one can appreciate the file search time saved when a substantially large number of files are present. Further, as an example, if file 22 had been chosen, the path from directory 18 would have led to directory 20, at which point two paths exist from directory 20. The desirable path to file 22 from directory 20 then would have been chosen. HFS 16, although shown in a particular form in FIG. 2, may have any number of levels (branchings) down from the root directory 17 as well as any number of branches from a particular directory. However, it is to be noted that all data is stored in the represented files 21-24 which are all located at the termination nodes of HFS 16. In actuality, the cataloging architecture of the preferred embodiment contains cataloging locator description information in the HFS 16 structure. The catalog entries for files 21-24 contain pointers which provide locator descriptions to locate places in storage area where actual stored data is kept.

Considering above disclosure by Bruffey et al, examiner maintains that at least Figure 2 which illustrates the architecture of the Hierarchical Filing System (HFS) of the present invention and as embodied in Figure 6 reads on the claim 1 limitation "a setting unit setting policy attribute data indicating a policy on which file management is based."

Applicant states on page 7, "in addition, claim 2 recites 'assigning policy attribute data of a directory so as to be inherited to a subdirectory' (claim 2, lines 5-6) as an alternative to assigning specified policy attribute data to the subdirectory. Nothing was cited or found in

Bruffey et al regarding inheritance of policy attribute data by a subdirectory." Examiner is not persuaded.

Bruffey et al discloses in column 1, lines 55-63 the following:
The cataloging structure of the hierarchical filing system is provided by an upside-down tree type structure wherein there is a starting directory which operates as a root directory. Other directories and files emanate as off-spring. A plurality of descendant levels branch downward to provide the hierarchical structure of the catalog. The cataloging structure contains the location information of where the actual data is stored.

Examiner maintains that above disclosure reads on the claim 2 limitation "an assigning unit assigning policy attribute data of a directory so as to be inherited to a subdirectory."

Applicant states on page 8, "In item 4 on pages 3-4 of the Office Action, claim 10 was rejected under 35 U.S.C. paragraph 103(a) as being unpatentable over Bruffey et al in view of Krawchuk et al. Nothing was cited or has been found in Krawchuk et al suggesting storing of policy attribute data as defined in claim 1." Examiner is not persuaded. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant states on page 8 "Furthermore, it is not understood why the Examiner believes that Fig 6 of Krawchuk et al 'discloses causing a file or directory which violated the policy to comply with the policy" (Office Action, page 4, lines 3-4). If Krawchuk et al continues to be relied on for this teaching, an explanation is respectfully requested of why one of ordinary skill in the art would find Fig 6 of Krawchuk et al as requiring compliance with a policy."

Krawchuk et al discloses the following in column 10, lines 8-35:

FIG. 6 shows the result of some of these deficiencies for the case of John and Mary Smith and their three children Ada, Kareem Abdul, and Ralph. Note that all of the problems encountered in sequential information systems are evident here as well. For example, Kareem Abdul's name is still subject to possible truncation; note also that the spaces which follow each of the names still represent unused, wasted space. To circumvent or minimize these problems, the same tactics which were used in the sequential information system can be used here as well. Codes can be introduced and space apportionment can be tuned, but only with the attendant cost of increased effort and complexity. Despite these shortcomings, the relational information system has many advantages over the sequential system, including reduced duplication with the resultant improvement in processing efficiency. However, duplication of information still occurs. Control information must still be implied by the programmer when the code is required to "walk" through two or more database sets to collect all of the needed data. Requiring each program to walk these sets introduces a maintenance problem: should the database set connections change, any program which traverses those sets must also be changed, requiring a non-trivial conversion effort. Thus, relational information systems are inefficient in the storage, maintenance, and extraction of information, but not as inefficient as sequential information systems. Although the inefficiencies can be minimized somewhat, they still remain formidable.

Examiner maintains that above disclosure reads on the claim 10 limitation "further comprising a policy recovering unit causing a file or a directory which violates a policy to comply with the policy, and deleting corresponding policy violation information."

Applicant states on page 8 "In item 5 on page 4 of the Office Action, claim 12 was rejected under 35 U.S.C. § 103(a) as unpatentable over Bruffey et al in view of Crouse et al. Nothing was cited or has been found in Crouse et al suggesting modification of Bruffey et al to include the storage of policy attribute data as defined in claim 1. [.....] Furthermore, nothing was cited or has been found in Crouse et al suggesting that 'policy attribute data is stored in the archive file' (claim 12, last two lines). Examiner is not persuaded.

Crouse et al discloses in column 4, lines 42-67 the following:

The archiving file system of the present invention comprises a unique archiving file structure for logically storing the remote files on the secondary storage device and a novel archiving file

control program executing in the network data server that controls the access to the remote files stored according to the archiving file structure. Part of the archiving file structure is a flexible control structure that is used for storing control information about the remote files as part of an addressable control file that has space on the data server that is dynamically allocated in the same manner in which space is allocated for any other remote file. The control structure also stores the set of hierarchically selectable archival attributes and one or more archival blocks associated with each remote file that automatically control the manner in which that remote file will be stored and ultimately archived, or even removed, from the network data server. The archiving file control program automatically manages the storage of and access to the remote files on multiple types of secondary storage media that are part of the network data server. The archiving file control program even allows for direct access to remote files which have been archived onto a long-term randomly positionable, removable secondary storage device without the need to first stage the archived file onto an online short-term direct access secondary storage device before the remote file can be accessed by a user program.

Examiner referenced above disclosure by Crouse et al as the reason for combination of the teachings of Crouse et al with Bruffey et al. One of ordinary skill in the art would have understood that the above provides a reason for combining the teaching of Crouse et al regarding an archive file (claim 12 limitation) with the base reference.

Applicant states on page 8, "in item 6 on pages 4-5 of the Office Action, claim 13 was rejected under 35 U.S.C. § 103(a) as unpatentable over Bruffey et al in view of Crouse et al and further in view of Pruett et al. However, nothing was cited or has been found in Pruett et al suggesting modification of the teachings in Bruffey et al and Crouse et al to store policy attribute data as defined in claim 1 along with path information in 'a hidden file in the archive file' (claim 13, line 2). As discussed above, Pruett et al merely describes use of a flag to indicate whether a file is hidden." Examiner is not persuaded. Pruett et al discloses the following in column 8, lines 22-40:

Returning to step 200 in FIG. 2A, if a "/H" qualifier was specified upon execution, indicating a desire to synchronize only those files which are not "hidden," then the method proceeds to decisional step 205, as illustrated by path 200h. At decisional step 205, it is determined whether

the "hidden" flag for the currently selected source file has been triggered, indicating that the currently selected file is a hidden file. If the file is not hidden, the method proceeds to decisional step 210. If the file is hidden, the method proceeds to decisional step 270. Thus, if the user has included the "/H" qualifier, hidden files in the source directory are not synchronized with the target directory. Returning to decisional step 210, if the file is a subdirectory and the user has not included the "/S" qualifier, then the method proceeds to decisional step 270, as illustrated by path 210s. The "/S" qualifier indicates that the user wishes to synchronize all subdirectories of the source directory. Thus, if the user has not chosen to synchronize subdirectories of the source directory, the method does not process any source file which is a subdirectory, nor any files contained within the subdirectory.

Examiner referenced above disclosure as the reason for combination in the Office Action. One of ordinary skill in the art would have understood that the above disclosure by Pruett et al can be combined with Bruffey et al and Crouse et al for the purpose of preventing the synchronization of certain files.

Applicant states on page 8, in item 7 on page 5 of the Office Action, claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Bruffey et al, Crouse et al and Pruett et al and further in view of Mamiya et al. However, nothing was cited or has been found in Mamiya et al suggesting modification of the other references to meet the limitations in claims 1, 12 and 13. Furthermore, as discussed above, Mamiya et al fails to teach or suggest retrieving policy attribute data as defined in claim 1 when a file is restored."

Examiner is not persuaded. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne LeRoux whose telephone number is (703) 305-0620. The examiner can normally be reached on Monday – Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Etienne LeRoux

October 1, 2003

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